WHAT IS CLAIMED:

A benzotriazole adduct having the structure:

$$(E-L)_{n} \xrightarrow{N} N \xrightarrow{Z'} (L-E)_{n}$$

$$(OH)_{n} (L'-E')_{n}$$

in which

n is 0, 1, 2, or 3;

E and E' independently are an organic moiety containing electron donor, epoxy, acetyl acetonate, or electron acceptor excluding acrylate, functionality;

Z is hydrogen, hydrocarbyl, or an organic moiety containing electron donor, epoxy, acetyl acetonate, or electron acceptor excluding acrylate, functionality;

Z' is hydrogen, hydrocarbyl, an electron donating group, or an electron withdrawing group,

L and L' independently are a direct bond, a hydrocarbyl group, or a functionality selected from the group consisting of .

in which R is a direct bond or a hydrocarbyl group attached to the benzotriazole segment; and R' is hydrogen, an aromatic, or an alkyl group of 1 to 6 carbon atoms, and

provided that if n is 0 for each of (E-L), (L-E), or (L'-E'), then Z is not hydrogen or alkyl; and

provided that if L or L' is a direct bond, or L or L' is alkyl and E is a maleimide or a styrene group, then for (L-E) or (L' - E'), n must be more than 1, or for (E-L), n must be at least one.

- 2. The benzotriazole adduct according to claim 1 in which n is 0 for (E-L), (L'-E') and for (OH), Z is hydrogen, Z' is hydrogen; n is 1 for (L-E), and L is not a direct bond or alkyl.
- 3. The benzotriazole adduct according to claim 1 in which n is 0 for (E-L), (L'-E'), and for (OH), n is 1 for (L-E), L is not a direct bond or alkyl, Z is an organic moiety containing electron donor, epoxy, vinyl, acetyl acetonate, or electron acceptor excluding acrylate, functionality; and Z' is hydrogen.
- 4. The benzotriazole adduct according to claim 1 in which n is 0 for (E-L) and (L'-E'), n is 2 for (L-E), Z is hydrogen; and Z' is hydrogen.

5. The benzotriazole adduct according to claim 1 having the structure:

6. The benzotriazole adduct according to claim 1 having the structure:

7. A benzotriazole adduct having the structure:

$$\begin{bmatrix} E - L \end{bmatrix}_{n} \begin{bmatrix} N & N & N \\ N & N & N \end{bmatrix} \begin{bmatrix} L - E \end{bmatrix}_{n}$$

in which

n is 0, 1, 2, or 3;

E and E' independently are an organic moiety containing electron donor, epoxy, acetyl acetonate, or electron acceptor excluding acrylate, functionality;

Z is hydrogen, hydrocarbyl, or an organic moiety containing electron donor, epoxy, acetyl acetonate, or electron acceptor excluding acrylate, functionality;

Z' is hydrogen, hydrocarbyl, an electron donating group, or an electron withdrawing group,

at least one of Z and Z' cannot be hydrogen or alkyl;

L and L' independently are a direct bond, a hydrocarbyl group, or a functionality selected from the group consisting of .

in which in which R is a direct bond or a hydrocarbyl group attached to the benzotriazole segment; and R' is hydrogen, an aromatic, or an alkyl group of 1 to 6 carbon atoms.

8. A curable composition comprising a benzotriazole adduct, optionally a curing agent, and optionally a filler, the benzotriazole adduct having the structure

$$(E-L)_{n} \xrightarrow{N} \xrightarrow{N} \xrightarrow{I} (L-E)_{n}$$

$$(OH)_{n} \xrightarrow{(CH)_{n}} (L'-E')_{n}$$

in which

n is 0, 1, 2, or 3;

E and E' independently are an organic moiety containing containing electron donor, electron acceptor, epoxy, vinyl, acetyl acetonate, (meth)acrylate, (meth)acryl amino, glycidyl, or siloxane functionality;

Z is hydrogen, hydrocarbyl, or an organic moiety containing electron donor, epoxy, vinyl, acetyl acetonate, (meth)acrylate, (meth)acryl amino, glycidyl, or siloxane functionality;

Z' is hydrogen, hydrocarbyl, an electron donating group, or an electron withdrawing group,

L and L' independently are a direct bond, a hydrocarbyl group, or a functionality selected from the group consisting of .

in which R is a direct bond or a hydrocarbyl group attached to the benzotriazole segment; and R' is hydrogen, an aromatic, or an alkyl group of 1 to 6 carbon atoms.

 A curable composition comprising a benzotriazole adduct, optionally a curing agent, and optionally a filler, the benzotriazole adduct having the structure

$$\begin{bmatrix} E - L \end{bmatrix}_{n} \begin{bmatrix} N & N & N \\ N & N & N \end{bmatrix} \begin{bmatrix} L - E \end{bmatrix}_{n}$$

$$\begin{bmatrix} Z - O \end{bmatrix}_{n} \begin{bmatrix} O - Z \end{bmatrix}_{n}$$

in which

E and E' independently are an organic moiety containing electron donor, electron acceptor, epoxy, vinyl, acetyl acetonate, (meth)acrylate, (meth)acryl amino, glycidyl, or siloxane functionality;

Z is hydrogen, hydrocarbyl, or an organic moiety containing electron donor, electron acceptor, epoxy, vinyl, acetyl acetonate, (meth)acrylate, (meth)acryl amino, glycidyl, or siloxane functionality;

Z' is hydrogen, hydrocarbyl, an electron donating group, or an electron withdrawing group,

L and L' independently are a direct bond, a hydrocarbyl group, or a functionality selected from the group consisting of .

in which R is a direct bond or a hydrocarbyl group attached to the benzotriazole segment; and R' is hydrogen, an aromatic, or an alkyl group of 1 to 6 carbon atoms.